

~~AIR FORCE~~

To Present A Review of the Current Status of the

Air Force
U-2 Program

498

USAF Declassification/Release Instructions On File

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Engineering
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GENERAL INFORMATION

U-2 Single Place, Single Engine Jet Aircraft for long range reconnaissance at extreme altitude - Built by Lockheed Aircraft Corporation

Using Command -- SAC

Prime Support AMA -- WRAAM

Engine - - - - J-57-P-37/P31A
Fuel (Special) LFIA 1053 U.S. Gal
1360 U.S. Gal

Design Gross Wt. - - - - 17,750 lbs
Wing Span - - - - - 80 feet
Length - - - - - 49.9 feet
Landing gear - - - - - Bicycle Type, Wing Pogo Sticks

Auto Pilot

No Ejection Seat

Combat Equipment - Varied Photo and Electronics Packages

(B)

BASIC MISSION PROFILE

Descent

25X1D0e [REDACTED]

25X1D0e [REDACTED]

25X1D0e [REDACTED]

200 N.M.

1500 N.M.

T.O. Wt - - - - - 17,750 lbs
Engines - - - - - P-38
Increased Performance - - - - P-38

Cruise Out/Back Military Power - - - - 425 Kts
Mission Time - - - - - - - - - - - 8 Hrs
Dist. T.O. and Climb 50' - - - - - 1100 ft
Dist. Land From 50' - - - - - 1900 ft

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PROGRAM DATA

SCHEDULE (29 A/C)

1956

1957

Photo	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
	1	-	1	1	2	2		2	2		2		1	1	1
Research															1
Ferret															2
H.R. Radar															
Sampler													2	3	

CONTRACTUAL STATUS

(PREFERENCE)

Letter Contract Awarded 30 Jan 56

Tentative Price ----- \$22,423,355

Definitive Contract Negotiated 11 July 56

Target ----- \$18,640,114

*CONFIDENTIAL**7/10/62 D.A.*AIR FRAME

Air Frame (Unit - \$457,154)	29 a/c-----	\$13,257,466
Sampling Mod (Unit - \$83,713)	6 a/c-----	502,277
Spare Parts-----		4,535,446
G.H.E.-----		344,925
Total (Includes Profit 9½%)		\$18,640,114

SERVICES CONTRACT (TECH REPS, TRAINING, &
WAREHOUSE PEOPLE)

75,000

EQUIPMENT

Sextant Contract-----	\$ 464,212
View Finder, Tracker, Camera windows-----	1,450,628
Cameras-----	1,321,523
* Systems I, III, IV Ground Support Equip-----	1,250,500 1526,423
ANQ-56 Radar-----	748,621
Photo Processing Equip-----	1,220,449
Personal Equip-----	345,126

Total (Includes spares, test equip, data
training, tech reps, factory overhaul
parts) *1056,982*

*DOES NOT INCLUDE ENGINE PROGRAM.*TOTAL FUNDS PRESENTLY REQUIRED FOR PROGRAM (Less GPAB)

Airframe & Services-----	18,718,114
Equipment-----	8,18,640,114
	7,569,059
	<u>6,956,982</u>
	\$26,229,175

25,675,096

Above prices are for follow-on Program and do not include development costs picked up on initial procurement.

* PRICE OF SYSTEM IV WILL BE NEGOTIATED AFTER
DEVELOPMENT IS COMPLETE.

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EQUIPMENT CHART

ITEM	PHOTO	RESEARCH	FERRET	H.E.R.	SAMPLE
Driftsight	X	X	X	X	X
Sextant	X		X	X	X
Tracker Camera	X		X	X	X
A1 Camera	X				
A2 Camera	X				
B Camera	X				
C Camera	X				
AFQ - 56					X
Radar			X	X	
System I	X		X	X	
System III A	X		X	X	
System IV			X		

STATUS OF EQUIPMENT

DRIFTSIGHT - Operational, On Firm Contract

Delivery Begins Oct 56

SHIPPED TO D&C

SEXTANT - Operational, On Firm Contract

Delivery Begins Oct 56

TRACKER CAMERA - Operational, On Firm Contract

Delivery begins Oct 56

SHIPPED TO Jan 57.

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A1 and A2 CAMERAS - Operational on Firm Contract
Delivery begins Dec 56

B CAMERA - Undergoing additional testing Operational only on
Risk Basic (40 to 60% effective) on firm contract
Delivery begins Feb 57

C CAMERA - Under development ^{FLIGHT DEC 57}
~~1st not due until test Oct 56~~
UNDERGOING ADDITIONAL TESTING.

APQ - 56 and RADAN presently undergoing testing. Units on contract
delivery 1st Mar 57

RADAN for FERRET a/c - Authorization to proceed issued.
Attempting to install prior to 1st delivery.
TIRD IN WITH RSU-6 GPI, ASN-7 TO BE
INSTALLED WITH ^{FIRM} AVAILABLE
SYSTEMS I and III - Operational, Contractor Manufacturing under
letter of intent. ~~RSU-6 GPI~~ System I now being delivered. System III
delivery begins ^{FIRM} 1st Mar 56.
AN DEC

SYSTEM IV - Still under development
FIRM 1st delivery for test approximately ¹⁰⁰ 1st Mar 56.

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STATUS OF PRIME SUPPORT ITEMS

PHOTO PROCESSING EQUIPMENT - Units for 3 complete processing sites (9 $\frac{1}{2}$ and 70 mm) plus 2 additional 70mm sites are on firm contract. Available approximately March 57
Contract let for modification and check out of Govt furnished A9

PROCESSING EQUIP FOR SYSTEMS I AND III - 3 complete sets being procured ~~Contract negotiations~~. Tape Reproduction at site, Analysis at Offutt.

FUEL - Tests being conducted on special grade JP-1 MFG in accordance with WADC Spec. If successful, this fuel will be alternate to RP-3A. ~~Undecided whether to continue using LFIA or switch to JP. (huge quantities required)~~

ENGINES - Joint Support

30 P-37	49	P.W.
29 RP-31A		
30 P-31A		

ATTENTION
45 remain
96 engines remain

CONTRACTOR OVERHAUL BEING UTILIZED

SPARE PARTS TO BE APPORTIONED.

AMC & SAC officially requested add'l engines procurement no Nov 56.

(X) 10
Maintenance

Normal SAC (Centralized Type)

Maintenance to be Utilized

Common Items -- To be repaired and replaced through normal
Air Force system - Prime Depots

Peculiar Items -- Contractor Overhaul - Tech Rep Assistance in
Field

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SUPPLY AND SUPPORT

1. Depot set up at Maywood - Secure Warehouse

5 WRAMA people detached service
Utilizing cleared contractor personnel
Bins set up
Stocks being received
Established stock records

- ~~1. FLYING KIT~~ (SAC ASSISTANCE) ^{BUILT WITH}
~~2. OPERATING & Supply DIRECTIVES~~ ~~PUB~~ PUBLISHED
~~2. Wing SICK Published by AMG - ISPIED SICKENED BY SAC FOR~~
~~PURCHASE OF EQUIPMENT. REQUISITIONS TO BE ISSUED FOR~~
~~REMAINING EQUIPMENT USING DRAGOLIPOV PRIORITY 74 E~~
~~3. AFSD action taken on common items of Squadron SICK and Depot~~
~~support items. Equipment coming into MAYWOOD~~
4. Flying kit listing published
SAC and WRAMA to build Flying Kit
5. Provisioning - (Based upon 30 day FAK and 360 day stock level)
Initial provisioning completed with all contractors. ~~WRAMA~~
~~Maywood~~ scheduled for 5 Oct. ~~WRAMA DPP A 30-152~~
~~PCRU M-6.~~
6. Overhaul support review meeting to be held in near future. ~~11 JUN 59~~
7. ~~Now~~ ^{10C} System set up to support first few aircraft. FOR TRANSITION.
FLYING & MINIMUM TRAINING WITH EQUIPMENT
8. Objective to have complete support by deployment date 1 July 1959.

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TRAINING

1. Training of SAC personnel ~~now~~ contractually covered with each contractor.
 - A. Air Frame - ^{2nd} class ^{each} 12 students Completed training ,
91 total at Lockheed Aircraft Corp
^{to train}
 - B. Cameras - SAC and Ezecon have made firm arrangements - 7 people
1ST CLASS now in PROGRESS
 - C. Driftsight and Tracker - ~~the~~ ^{each} Perkins and Elmer. ^{made firm}
~~arrangements~~
1ST CLASS now in progress
 - D. Systems I and III, ^{1ST} class to ^{IN PROGRESS} start 15 Oct (18 students - 10 weeks)
- E. Sextants - 1st class to start 15 Oct. ^{Completed} TRAINING AT BAUZO
- F. Pressure Suits - Arrangements made ~~for~~ ^{with} 3 people ^{HULL REPS}
TRAINED at ^{25X1A5a2}
- G. Autopilot - Technicians will receive OJT at site on auto pilot difference
- H. Engine - Plan using TRAI^{ED} ⁻³⁷ engine mechanics - Receive addt OJT
2. Pilot training and checkout ~~is~~ ^{being} conducted at site.
~~near~~ ~~site~~

SUMMARY

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FAST MOVING PROGRAM
APPEARS THAT AIRCRAFT WILL BE AVAILABLE AND OPERATIONAL
ON SCHEDULE
FULL SUPPORT SHOULD BE AVAILABLE (ENJOY HIGH PRIORITY)
BASIC GUIDELINE SP 1914 SECOND PREFERENCE TO SP 1913

ASSOCIATED RECOMMENDATION

That over-all program procedures be evaluated in near future for purpose of adapting or utilizing favorable procedures on other Air Force procurements.

Assign responsibility to contractor-let him proceed without hindrance.

Program monitored by small Air Force complement with full responsibility and authority.

CAMERA CONFIGURATION CHARACTERISTICS

CONFIGURATION	A1	A2	1			2			TRACKER
			M1	M2	N1	N2	N3		
Mission Purpose	Mapping and Medium Scale Mil Industrial Intell	Medium Scale Mil Indust Intell	Medium Scale Military Indust Intell	Medium Scale Military Indust Intell	Spotting Camera Mil Indust Intell				a/e course Identif and Intell
Uses of Information	Maps for Location and Identif of Ind Install	Identif of Indust Install	Identif and Anal of Install for Technical and soon info	Identif and Anal of Install for Technical and soon info	Detail Analysis of Install				Analysis of terrain and Install
No of Cameras and focal length	3-6" 1-24"	3-24"	3-36"	1-36"	1-180"				
Range Photo Flightline Miles	5000 Stereo	1080 Stereo	3,250 Stereo	1,700 or 2,800 Stereo	500 Stereo spot photos 1500 singleline 1750 double line				4500 miles
Area coverage vertical photo	20x20 miles	5x10 miles	5x10 miles	6.5 x 6.5 miles	1x1 mile				
Size of Print	9"x9" 9"x24"		9"x18"	18"x18"					2 3/8"x 9 1/2"
Ground Scale Vertical Photo									25X1D0e
Ground Resolution Vertical Photo									25X1D0e
Weight with Film	339 lbs		336 lbs	430 lbs					55 lbs

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PROBLEM AREAS

GENERAL PROBLEMS

1. SECURITY
2. LACK OF OPERATIONAL CONCEPT
3. LACK OF OPERATING BASE
4. ~~DEVIANT OR INEFFICIENT OPERATION - DAMAGE AIRCRAFT~~
5. NORMAL TENDENCY TO CHANGE AIRCRAFT AND/OR ADD EQUIPMENT
6. USE OF SPECIALLY DEVELOPED EQUIPMENT IN OTHER AIRCRAFT

~~PROBLEMS~~
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